

IN THE CLAIMS

The pending claims are as follows:

1. (Previously Presented) A multi-layer record carrier provided with at least two substantially parallel information layers and capable of being scanned by a single scanning device, wherein data is written in units of data blocks on tracks of said at least two  
5 information layers, a first guard field being written at a start of a data block and a second guard field being written at an end of said data block,  
characterized in that in at least an upper information layer of said at least two substantially parallel information layers, said  
10 first and second guard fields have lengths such that an end position of said second guard field of a preceding data block is located within an area of said first guard field of a succeeding data block.

2. (Previously Presented) The multi-layer record carrier as claimed in claim 1, wherein the lengths of said first guard field and of said second guard field are selected such that those parts of said first guard field and of said second guard field which do  
5 not overlap each other have a predetermined minimum length.

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3. (Previously Presented) The multi-layer record carrier as claimed in claim 1, wherein a predetermined preamble pattern is written between said first guard field and said data block, and a predetermined postamble pattern is written between said data block  
5 and said second guard field.

4. (Previously Presented) A multi-layer record carrier having at least two substantially parallel information layers and capable of being scanned by a single radiation beam generated by a scanning device, wherein data is written in units of data blocks on tracks  
5 of said at least two information layers, a first guard field being written at a start of a data block and a second guard field being written at an end of said data block,  
characterized in that in at least an upper information layer of said at least two substantially parallel information layers, said  
10 first guard field and said second guard field each have a predetermined minimum length which is approximately equal to the sum of half the diameter of the radiation beam in the upper one of said at least two information layers when focused on the lowest one of said at least two information layers, and a maximum allowed  
15 misalignment between the two information layers.

5. (Previously Presented) The multi-layer record carrier as claimed in claim 1, wherein said first and said second guard fields contain dummy data for overwriting previously recorded data.

6. (Previously Presented) The multi-layer record carrier as claimed in claim 4, wherein said length of said first and of said second guard field is equal in said at least two information layers.

7. (Previously Presented) The multi-layer record carrier as claimed in claims 4, wherein a gap portion is provided between said second guard field and a header area succeeding said second guard field and/or between said first guard field and a header area  
5 preceding said first guard field, the length of the gap portion being greater than or equal to said predetermined minimum length.

8. (Previously Presented) The multi-layer record carrier as claimed in claim 7, wherein said length of said gap portion is equal in said at least two information layers.

9-10. (Cancelled).

11. (Previously Presented) A method for recording data on a multi-layer record carrier having at least two substantially parallel information layers, said method comprising the steps:

- a) writing the data in units of data blocks on tracks of said at least two information layers; and
- b) writing a first guard field at the start of a data block and writing a second guard field at the end of a data block, characterized in that the method further comprises the step:
- c) setting the lengths of said first and of said second guard field in at least an upper information layer of said at least two substantially parallel information layers, such that the end position of said second guard field of a preceding data block is located within the area of said first guard field of the succeeding data block.

12. (Previously Presented) The method as claimed in claim 11, wherein said setting step is performed such that those parts of said first and of said second guard field which do not overlap each other are set to have a predetermined minimum length.

13. (Previously Presented) A method for recording data on a multi-layer record carrier by scanning the record carrier with a single radiation beam, said record carrier having at least two

substantially parallel information layers, said method comprising  
5 the steps:

- a) writing said data in units of data blocks on tracks of said at least two information layers; and
- b) writing a first guard field at the start of a data block, and a second guard field at the end of a data block,

10 characterized in that the step of writing said first and second guard fields comprises:

- c) writing said first guard field and said second guard field in at least an upper information layer of said two substantially parallel information layers such that the length of said first and  
15 of said second guard field is greater than or equal to a predetermined minimum length which is approximately equal to the sum of half the diameter of the radiation beam in the upper one of said at least two information layers when focused on the lowest one of said at least two information layers, and a maximum allowed  
20 misalignment between the two information layers.

14. (Previously Presented) The method as claimed in claim 11, wherein said method further comprises the step of:

writing dummy data into said first and said second guard field.

15. (Previously Presented) The method as claimed in claim 13,  
wherein said method further comprises the step of:

setting said length of said first and of said second guard  
field to be equal in said at least two information layers.

16. (Previously Presented) The method as claimed in claim 13,  
wherein the record carrier comprises a gap portion provided between  
said second guard field and a header area succeeding said second  
guard field and/or between said first guard field and a header area  
5 preceding said first guard field, and wherein the method further  
comprises the step of:

setting the length of the gap portion so as to be greater  
than or equal to said predetermined minimum length.

17. (Previously Presented) The method as claimed in claim 16,  
wherein said method further comprises the step of:

setting said length of said gap portion to be equal in  
said at least two information layers.

18. (Previously Presented) A recording apparatus for recording  
data on a multi-layer record carrier having at least two  
substantially parallel information layers, said recording apparatus  
comprising:

- 5 a) a recording unit for writing said data in units of data blocks on said multi-layer record carrier, wherein a first guard field is written at the start of a data block and a second guard field at the end of a data block; and
- b) control means for controlling said recording unit so as to  
10 write said data blocks and said first and second guard fields on tracks of said at least two information layers, characterized in that said control means controls said recording unit so as to write said first and said second guard fields, in at least an upper information layer of said at least two substantially  
15 parallel information layers, with a length such that the end position of said second guard field of a preceding data block is located within the area of said first guard field of the succeeding data block..

19. (Previously Presented) A recording apparatus for recording data on a multi-layer record carrier having at least two substantially parallel information layers, said apparatus comprising:

- 5 a) a radiation source for generating a radiation beam;
- b) a recording unit for writing said data in units of data blocks on said multi-layer record carrier using said radiation beam, wherein a first guard field is written at the start of a data

block and a second guard field is written at the end of a data  
10 block; and

c) control means for controlling said recording unit so as to  
write said data blocks and said first and second guard fields on  
tracks of said at least two information layers,  
characterized in that said control unit controls said recording  
15 unit so as to write said first and said second guard fields, in at  
least an upper information layer of said at least two substantially  
parallel information layers, with a length greater than or equal to  
a predetermined minimum length which is approximately equal to the  
sum of half the diameter of the radiation beam in the upper one of  
20 said at least two information layers when focused on the lowest one  
of said at least two information layers, and a maximum allowed  
misalignment between the two information layers.

20. (Withdrawn) A method of manufacturing a multilayer record  
carrier (1) provided with at least two substantially parallel  
information layers (6, 8), comprising the step of performing an  
alignment of said at least two information layers (6, 8) by  
5 measuring and aligning alignment marks at predetermined measuring  
points (M1 to M6).



21. (Withdrawn) A method according to claim 20, further comprising the step of performing said measurement and alignment optically by using a camera device.

22. (Withdrawn) A method according to claim 20, wherein said alignment marks are header areas provided on said at least two information layers (6, 8).

23. (Withdrawn) A method according to claim 22, wherein said header areas are arranged to form header spokes, and said measuring points comprise a first point (M2) located on an inner diameter and a second point (M2) located on an outer diameter of a single header spoke and third point (M3) located on a spoke arranged at an angle of 90° with respect to said single header spoke.

24. (Withdrawn) A method according to claim 22, wherein said header areas are arranged to form header spokes, and said measuring points comprise a first point (M4) and a second point (M6) located at the outer diameters of two opposite header spokes and a third point (M5) located on a spoke arranged at an angle of 90° with respect to said two opposite header spokes.

25. (Previously Presented) The multi-layer record carrier as claimed in claim 4, wherein said first and said second guard fields contain dummy data for overwriting previously recorded data.

26. (Previously Presented) The method as claimed in claim 13, wherein said method further comprises the step of:  
writing dummy data into said first and said second guard fields.

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